9th Annual Shock Wave/Boundary Layer Interaction (SWBLI) Technical Interchange Meeting
May 24-25, 2016 at the Ohio Aerospace Institute (OAI) Cleveland, Ohio
AGENDA

Morning of Day 1- May 24, 2016 OAI Auditorium:

Time	Details
8:00- 8:30 am	**Coffee, juice and pastries**
8:30- 8:35 am	**Welcome & Opening Remarks** *Mary Jo Long-Davis, NASA*
8:35- 8:45 am	**Motivation and Objectives of Special Session on "Unsteady Flows"** *Jack Benek, AFRL*
8:45- 9:15 am	**Data analysis in high Reynolds number turbulent flows- experimental perspective** *Mo Samimy, The Ohio State University*
9:15- 9:45 am	**Unsteady data analysis techniques for CFD simulations, and data logistics** *Datta Gaitonde, The Ohio State University*
9:45-10:00 am	**BREAK**
10:00-10:30 am	**On Validation Issues for Unsteady Flows** *Bill Oberkampf, Consultant*
10:30-11:00 am	**Analysis of unsteady simulations to inform turbulence modeling** *Manan Vyas & Jim DeBonis, NASA*
11:00am-12:00 pm	**PANEL DISCUSSION (Moderator- Manan Vyas):** • *What are the gaps in the state-of-the-art which are most important to:* ○ *Experimental measurement approaches and post-processing tools* ○ *Simulation methods and port-processing tools* *[Tentative panel members include DeBonis, Doty, Gaitonde, Oberkampf, Samimy]*
12:00-1:00 pm	**LUNCH in the OAI Sunroom**

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Afternoon of Day 1- May 24, 2016 OAI Auditorium:

Time	Details
Real-time entry	**Representative from Mondo-Brain company**
1:00 – 1:30 pm	**Statistical Techniques for unsteady data analysis** *John Doty, University of Dayton*
1:30 – 2:00 pm	**Application of wavelet analysis** *Jacques Lewalle & Pinqing Kan, Syracuse University*
2:00 – 2:30 pm	**How can efficient time intervals be established for numerical simulations** *Mori Mani, Boeing*
2:30 –2:45 pm	**BREAK**
2:45 – 3:15 pm	**Unsteady analysis using large computational datasets** *Nick Bisek, AFRL*
3:15 – 4:15 pm	**PANEL DISCUSSION (Moderator- Jack Benek):** • *What are the gaps in the state-of-the-art which are most important to the logistics and limitations associated with high performance computing architectures?* • *How to close the gap between experiments (which can afford high temporal resolution and low spatial resolution) and simulations (which can typically afford high spatial resolution and lower temporal resolution)?* *[Tentative panel members include Bisek, DeBonis, Lewalle, Mani]*
4:15-4:30 pm	**WRAP-UP & ADJOURN**
6:00 pm	**No-Host Dinner at 100th Bomb Group Restaurant** **20920 Brookpark Road; Cleveland, OH 44135**

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Day 2- May 25, 2016 OAI Auditorium:

Time	Details
8:00 - 8:30 am	**CHECK-IN and Coffee, juice, pastries**
8:30 – 9:00 am	**Ongoing AFRL Supersonic Inlet Integration Research** *Jon Tinapple, AFRL*
9:00 – 9:30 am	**High Speed Aerodynamics at AFOSR** *Ivett Leyva, Air Force Office of Scientific Research*
9:30 –10:00 am	**The Statistical Nature of Unsteady Inlet Flows** *Bernie Anderson, NASA Distinguished Research Associate*
10:00-10:15 am	**BREAK**
10:15-10:45 am	**LES and Tensor Analysis on Vortex Ring and Shock Interaction in Boundary Layer** *Chaoqun Liu, University of Texas at Arlington*
10:45-11:15 am	**Application of Hybrid RANS-LES to Unsteady Shock-Wave Boundary Layer Interactions in the Presence of a Surface Mounted Proturberance** *Kader Frendi & Phil Ligrani, University of Alabama in Huntsville*
11:15-11:45 am	**New Experimental Wind Tunnel Research Capabilities at UAH for Investigation of Shock-Wave-Boundary-Layer-Interactions** *Phil Ligrani & Kader Frendi, University of Alabama in Huntsville*
Noon-1:00 pm	**LUNCH in the OAI Sunroom**
1:00 – 1:15 pm	**Dimensional analysis on SWBLI flows in rectangular test sections** *Mark McQuilling, Saint Louis University*
	Axisymmetric SWBLI validation experiment-request for input from CFD community *Dave Davis, NASAA*
1:15 – 1:45 pm	**Use of Vortex Generators to Reduce Distortion for Mach 1.6 Streamline-Traced Supersonic Inlets** *Ezgihan Baydar and Frank Lu, University of Texas at Arlington, John Slater, Chuck Trefny and Dennis Yoder, NASA*
1:45 – 2:15 pm	**Shock train unsteadiness and dynamics** *Mirko Gamba, University of Michigan*

2:15 – 2:45 pm	**Miniaturized Parametric Inlet Bleed Module with Integrated Discretized Flow Control** *George Papdopoulos, Innoveering*
2:45 – 3:00 pm	**Day 2 Wrap-up and ADJOURN**